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# FRBSF WEEKLY LETTER

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## Acquisitions in Banking

Corporate acquisitions, either through hostile takeovers or through negotiated mergers, have increased dramatically in recent years. Acquisition activity appears particularly intense in industries undergoing structural changes induced by changes in regulation or in technology. The recent increase in merger acquisition activity in the banking industry is a prominent example. From 1980 through 1984, there were 1,961 bank acquisitions. Moreover, assets of acquired banks during this period totaled \$174 billion, representing an approximately five-fold increase in banking assets acquired over the 1975 through 1979 period.

The increase in acquisition activity generally and the increase in the number of acquisitions within particular industries, such as banking, has raised concerns regarding the acquisition or takeover process itself as well as concerns over whether acquisitions impair economic performance by reducing the overall level of competition within an industry.

The purpose of this *Letter* is to review empirical evidence concerning the gains realized by shareholders in recent bank acquisitions. Two issues are examined. The first concerns the source of merger related gains, and the second concerns how competition among potential acquirers affects the division of gains between the acquired and acquiring firms. Evidence from the banking industry on these issues provides insights concerning the nature of competition within the acquisition market generally and has implications for regulatory reform of the acquisition process.

### Takeover process

Concerns over the takeover process have focused on the degree of public disclosure regarding a takeover bid and the time period any bid must be outstanding. Current federal legislation, embodied in the Williams Act passed in 1968, requires an acquirer to disclose within 10 days a purchase of 5 percent or more of the target firm's shares, its business plans concerning

the acquisition, and its sources of financing. The Williams Act also requires that offers remain open for at least ten days; that is, once a tender offer has been made (i.e., an offer to buy a block of the target firm's shares), shareholders must be provided at least ten days to decide whether to tender their shares.

The purported intent of the Williams Act is to protect target shareholders by providing them with more information about the acquirer and by giving them more time to decide whether to sell their shares. More time, it is argued, would protect target shareholders by promoting greater competition among other potential bidders during the acquisition process.

Recent legislation introduced in the Senate would expand the Williams Act by requiring quicker disclosure of a 5 percent interest in a target firm and by placing restrictions on additional stock purchases after a 5 percent interest is obtained (a two-day waiting period is proposed). Whether reform of the takeover process is needed and whether acquisitions enhance economic performance depend in large part on the sources of merger-related gains and the nature of competition within the acquisition market.

### Gains from acquisitions

A useful measure of expected gains from an acquisition is the change in the prices of shares of the acquired or target firm and the acquiring or bidding firm around the announcement of an acquisition. Share prices should reflect current and future anticipated returns to shareholders associated with the merger and therefore provide a measure of the market's assessment of the expected change in the combined firms' cash flows.

In a recent study, Peggy Wier and this author examined 40 acquisitions that occurred during the period 1974 through 1985 involving banks with actively traded shares. The average return for shareholders of the acquired bank around the

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announcement date of the acquisition was 15 percent. Acquiring bank shareholders, in contrast, experienced on average a small decrease in their stock price of about 1 percent around the announcement date. In dollar terms, for the 40 acquisitions examined, the combined market value of the acquired and acquiring bank increased an average of \$11 million (or approximately 2 percent of their combined pre-merger market value.)

Two conclusions can be drawn from this evidence. First, bank acquisitions are value-enhancing transactions as indicated by the increase in the combined market value of the acquired and acquiring banks. This implies that the gains realized by acquired banks are not simply offset by losses by the acquiring bank, but rather result from higher expected cash flows for the combined entity. Second, acquisitions are, on average, zero-gain propositions for the acquiring bank.

The results for the banking industry, in terms of the returns to acquiring and acquired firms, are virtually identical to the results obtained from other studies of horizontal acquisitions (i.e., acquisitions involving firms in the same industry) and corporate acquisitions generally. For example, in a recent study of over 100 horizontal mergers, Espen Ebo found that the share price of acquired firms increased an average of 14 percent around the announcement of the acquisition; the acquiring firms experienced no significant increase in value.

## Sources of gains

While bank acquisitions appear to be value-enhancing, the desirability of acquisition activity from a societal view depends on the source of acquisition-related gains. Various explanations for the observed gains have been advanced. For example, reductions in production or distribution costs, called synergies, could occur through the realization of scale or scope economies. Acquisitions, particularly hostile takeovers, could eliminate an inefficient target firm's management and thereby improve the target firm's performance. Finally, acquisitions could increase monopoly power in product markets.

Which of these potential explanations is correct has important public policy implications. For example, if acquisitions in banking were to

result in increased monopoly power and higher prices for banking services, then, while they may benefit the acquired firm, acquisitions would reduce overall societal welfare.

One way to determine whether the gains observed in bank acquisitions are the result of higher anticipated monopoly profits, is to examine the stock price reaction of banks competing with the newly merged bank. If the acquisition is expected to facilitate collusion among banks in a particular market, the price of banking services could be expected to increase. The increase in the price of bank services should benefit both the merged banks as well as their competitors. Based on this reasoning, the stock price of the competing or rival banks should increase around the announcement date of the acquisition if the acquisition were expected to increase monopoly power.

For the acquisitions studied, no significant increase was observed in the value of competing banks' shares around the announcement of the acquisition. It is interesting to note that there was no change over the 1974 through 1985 period in the stock price reaction of rival banks. As discussed in a recent *Letter* (December 26, 1986), antitrust standards for bank acquisitions have become more lenient in recent years. Nevertheless, the relaxation of these standards apparently has not resulted in acquisitions that increase monopoly power.

## Determinants of the division of gains

A second issue concerns how competition among acquiring or bidding firms affects the division of gains between the target and the acquiring firm. The effect of competition among bidders on the division of gains has important public policy implications. In particular, critics of the Williams Act and proposed extensions of that legislation argue that such laws promote competition for a target's shares *after* the target has been identified by a bidder (promoting so called "auctioneering"). The increased competition among bidders, while raising the price stockholders of the acquired firm receive for their shares, lowers the returns the acquiring firm receives. Lower returns for acquiring firms will, it is argued, reduce the incentives of potential acquirers to search out acquisition candidates.

Whether promoting an auction for a target firm's shares will redistribute gains from the acquirer to the acquired firm will depend on at least two factors: (a) the extent to which the gains from an acquisition are generated by resources unique to

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a specific bidder, such as a unique location or management team, and (b) the extent to which information revealed when a bid is announced can be appropriated by other bidders (or the target). These two factors determine the degree to which bidders are potential competitors for a given target firm. The greater the degree of substitutability among bidders the more likely it is that promoting an auction will reduce the returns acquiring firms receive.

A problem in determining the effect of competition among bidders on the division of gains is the difficulty of obtaining an accurate measure of the intensity of competition among bidders. The observed number of participants in an acquisition attempt probably does not measure rivalry very precisely because, for one, the initial bid price may be high enough to discourage others from participating in the contest. The potential participants therefore are never publicly identified. Another reason is that a merger may result from an unpublicized contest involving several active parties.

In light of this problem, acquisitions in banking provide a unique opportunity to examine how competition among potential bidders affects the division of gains. Bank acquisitions can provide insights into this issue because banking is subject to a unique set of regulatory constraints that greatly facilitate the identification of potential bidder and alternative target firms for a particular acquisition. Specifically, the Bank Holding Company Act as amended in 1970 and the National Banking Act (and current state banking laws), generally require that the acquirer of a commercial bank also be a commercial bank or bank holding company. Acquisitions are also restricted geographically by the combination of federal and state laws limiting interstate as well as intrastate acquisition (e.g., branching laws).

By identifying the number of potential bidders or alternative targets for a particular acquisition, competition within the banking acquisition market can be measured. If potential bidding firms can be substituted for one another, one would expect to see smaller returns to acquiring firms in acquisitions involving a larger number of potential bidders. If target firms were substitutable, one would expect to see smaller returns to acquired firms in acquisitions involving a larger number of alternative targets.

The number of potential bidders and alternative targets was calculated for 40 bank acquisitions. A potential bidder was defined as any bank larger than the acquired bank, which, under prevailing state and federal laws, was permitted to purchase the acquired bank. An alternative target was defined as a bank of approximately the same size and located in the same geographical area as the acquired bank.

The findings of James and Wier's study indicate that competition among potential bidders as well as among alternative target banks affects the division of gains in bank acquisitions. The greater the number of potential bidders and the fewer the number of alternative targets, the larger the return to the acquired bank and the smaller the return to the acquiring bank. This finding implies a degree of substitutability between bidders and alternative targets.

It is also interesting to note that the number of potential bidders and targets in an acquisition influences only how the gains are divided among participants and *not* the total dollar value change resulting from the acquisition.

### **Conclusion and implications**

Two important findings emerge. First, competition among both potential bidders and alternative targets affects the division of acquisition-related gains. More bidders implies that the acquired bank's shareholders will realize a greater proportion of the gains from an acquisition. Second, the gains from the bank acquisitions studied do not appear to result from expected increases in monopoly power but rather from gains anticipated from geographical expansion synergies in production.

These findings have implications for the current debate concerning the regulation of the acquisition process. Regulations intended to promote competition among potential acquirers for a given target firm are likely to reduce the profits the acquiring firm receives. A smaller share accruing to the acquiring firm could imply a reduction in the amount of acquisition activity, and impede an efficient reallocation of corporate assets.

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# San Francisco Bank of Federal Reserve Research Department

## BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT (Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 7/1/87	Change from 6/24/87	Change from Dollar 7/2/86	Percent <sup>7</sup>
Loans, Leases and Investments <sup>1 2</sup>	206,975	1,583	4,002	2.0
Loans and Leases <sup>1 6</sup>	184,016	1,727	2,236	1.1
Commercial and Industrial	53,147	474	1,241	2.3
Real estate	69,516	259	2,675	3.7
Loans to Individuals	36,685	— 8	— 4,446	— 10.8
Leases	5,405	9	— 116	— 2.1
U.S. Treasury and Agency Securities <sup>2</sup>	16,034	168	5,331	49.8
Other Securities <sup>2</sup>	6,924	— 311	— 444	— 6.0
Total Deposits	214,619	11,148	3,610	1.7
Demand Deposits	60,073	9,875	4,137	7.3
Demand Deposits Adjusted <sup>3</sup>	39,896	4,795	— 11,549	— 22.4
Other Transaction Balances <sup>4</sup>	19,859	949	3,397	20.6
Total Non-Transaction Balances <sup>6</sup>	134,687	325	— 3,923	— 2.8
Money Market Deposit Accounts—Total	44,604	211	— 2,506	— 5.3
Time Deposits in Amounts of \$100,000 or more	31,726	— 537	— 4,590	— 12.6
Other Liabilities for Borrowed Money <sup>5</sup>	23,995	— 147	— 383	— 1.5
<b>Two Week Averages of Daily Figures</b>	Period ended 6/29/87	Period ended 6/15/87		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (—)	217	51		
Borrowings	18	8		
Net free reserves (+)/Net borrowed(—)	199	44		

<sup>1</sup> Includes loss reserves, unearned income, excludes interbank loans

<sup>2</sup> Excludes trading account securities

<sup>3</sup> Excludes U.S. government and depository institution deposits and cash items

<sup>4</sup> ATS, NOW, Super NOW and savings accounts with telephone transfers

<sup>5</sup> Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

<sup>6</sup> Includes items not shown separately

<sup>7</sup> Annualized percent change